C. Remarks

The claims are 1 and 4-6, with claim 1 being the sole independent claim. Claim 1 has been amended to clarify the invention. Support for the amendments can be found throughout the specification as originally filed, see, e.g., paragraphs [0024], [0032], [0125], [0128], [0129] and [0159] and Figures 5A (209, 212) and 6. Reconsideration of the present claims is respectfully requested.

Claims 1, 4 and 5 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious over Watanabe (U.S. Patent No. 5,689,289), Casey (U.S. Patent No. 6,097,499), Iwasaki (U.S. Patent No. 6,328,403) and Clark (U.S. Patent No. 7,265,856). Claim 6 stands rejected under 35 U.S.C. § 103(a) as being allegedly obvious over Watanabe (U.S. Patent No. 5,689,289), Casey (U.S. Patent No. 6,097,499), Iwasaki (U.S. Patent No. 6,328,403), Clark (U.S. Patent No. 7,265,856) and Iwasaki (U.S. Patent Application Publication No. 2002/0175961). Applicants respectfully traverse these rejections.

As presently claimed, the instant invention is characterized by certain features. One such feature is the print buffer, which is importantly divided into a plurality of first regions corresponding with a scan direction of the print head. Each first region is further divided into a plurality of second regions in correspondence with color components. Another such feature is input means which sequentially inputs block data corresponding to the first regions. The block data contains a plurality of color component data and a code representing a data delimiter between first color component data and second color component data. The color component data has a plurality of compressed raster data and is stored in second regions respectively.

Simply put, Watanabe and Iwasaki do not divide a print buffer. On the contrary, in the present invention, the print buffer is divided into regions which correspond to block data as shown in Figure 5A.

Instead, in Watanabe it is described by Figure 3 (column 4, lines 15-18) that 205,206 is a printer buffer for storing data output from the horizontal-to-vertical converter circuit 204, having a data storage capacity corresponding to the area to be recorded by a single main scan of the recording head. Furthermore, column 5, lines 46-51, in Watanabe discloses that the print buffers 1(205), 2(206) are both memories having a storage capacity (64 X 3640 bits) corresponding to a data amount recorded by a single scan of the recording head 21, one of them being used for the reading (recording), while the other is used for the storage of data for scan. This is very different from the presently claimed invention.

In Iwasaki, it is described in Fig.11 (column 7, line 62 to column 8, line 23) that the analyzed print data of the individual colors are developed by the print data developing means 617, and the developed data are stored in the print buffers 618Y, 618M, 618C, and 618K of the corresponding colors under the control of the developing band managing means 11004 to 11007. Each of these print buffers 618Y, 618M, 618C and 618K is configured in units of storage areas for eight rasters. A RAM having the print buffers 618 for storing print data of the corresponding colors is described in Fig.14 (column 9, lines 58-60). Having multiple print buffers configured into units of storage areas is very different from the presently claimed invention, where a print buffer is divided into first regions corresponding to the print head scan direction and then subdivided into second regions corresponding with color components.

Casey and Clark do not remedy the deficiencies of Watanabe and Iwasaki. Casey is cited by the Examiner for its disclosure related to a print buffer having a column data amount stored that is smaller than the data that may be printed through one main scan of a print head. Casey does not disclose or suggest the key features of the present invention noted above.

Clark is cited by the Examiner for its disclosure related to a code representing a data delimiter between first and second color component data. However, Applicants respectfully submit that the disclosure of Clark is not on point. In Clark, it is described in Fig. 2, step 210 (column 4, lines 18-26) that all the data for each color will be transmitted in a different data stream, and the host software 150 will divide the print data into a separate data stream for each of cyan, yellow, and magenta. Further, the ordering of segments for three data streams, a cyan data stream 310, a magenta data stream 320, and yellow data stream 330 is described in Fig. 3 (column 5, lines 15-21). On the contrary, data stream in the present invention is single and a plurality of block data are sequentially transferred. Each block data includes data for a plurality of colors. Therefore, the present invention is entirely different from Clark regarding data stream.

In sum, even when looking at the combined disclosure of Watanabe, Casey, Iwasaki and Clark, key features of the present invention are not disclosed or suggested. The cited art simply fails to disclose or suggest a print buffer for dividing storage area into first regions corresponding with a scan direction of the print head, those first regions being divided into second regions in correspondence with color components. block data containing a plurality of color component data and a code representing a data delimiter

between a first color component data and a second color component data. For at least these reasons, Applicants respectfully submit that the present invention is not obvious over the cited art and request withdrawal of the §103 rejections.

In view of the foregoing amendments and remarks, favorable reconsideration and passage to issue of the present application is respectfully requested. Should the Examiner believe that issues remain outstanding, the Examiner is respectfully requested to contact Applicants' undersigned attorney in an effort to resolve such issues and advance the case to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

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